

# Fibers & Textiles

Fibers	Poly(p-phenylene-2,6-benzobisoxazole)(PBO) Fiber : <u>ZYLON®</u> ***TECHNICAL INFORMATION Dyneema®:Ultra-high-strength Polyethylene Fiber Heat & Chemical resistant fiber: <u>PROCON®</u> Heat generating fiber: <u>eks®</u>
Yarns & Fabrics	Cross-linked Acrylate Fiber <u>EKS®</u>
	Polyester filament Yarns SPECIALITY FILAMENT ***HEIM® ***ESTER MAGIC®
	Polyester fabric ESTER® ROSALLY® EKSLIVE®
	Nylon Fabric NFDC
	Recycled polyester ECHORCLUB®
	Composite fabrics SOCIO®
	Promix CHINON®
	Knit fabrics Spectar® Wintima® Feeji®
	Fabrics for men's shirting Excellent Fabrics ***For Dress Shirting ***For Thoub Cloth
Finishing, Blending	TOYOBO'S HYGIENE REVOLUTION
Series	TOYOBO's SIENCE IN COMFORT
Brand	TOYOBO Textile Brand list

siro

## Fibers & Textiles

**Fibers****Yarns & Fabrics****Finishing, Blending****Series****Brand**

## Functional & Biomedical Products

**Biochemicals****Pharmaceutical Products****Chemical Filter Series****Resins****Engineering Plastics****Shock Absorbing Device****Materials for Printing****Industrial Products**

## Films

**Films**

## Others

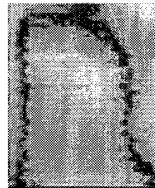
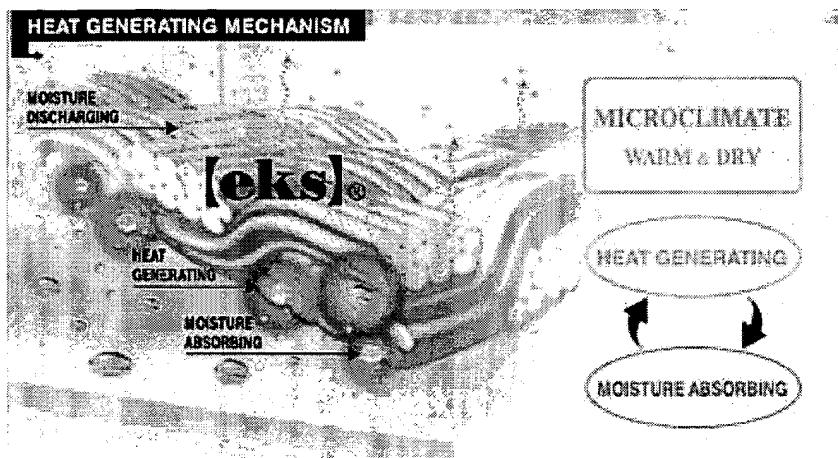
**Simulation CG&Apparel****R&D**

# AT LAST...

## A FIBER THAT GENERATES HEAT!

Existing fibers used for cold weather wear/gear simply insulate with its big bulk. They do not actually create heat to the body. [eks]® is a perfectly NEW fiber based on a different design concept. [eks]® generates heat.

It absorbs water quickly and keeps you dry and comfortable.



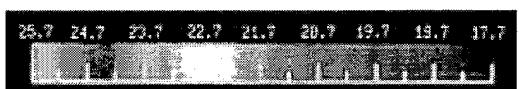
[eks]®

Thermography of a water saturated knit fabric that is made with 30% [eks]® fibers.



COTTON

Thermography of a water saturated knit fabric made from 100% cotton.



Measuring environment(20°C±65%RH)

[eks] is a registered trademark of TOYOB0 in Japan.

HEAT GENERATING FIBER

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Heat Generating

Moisture Absorbing

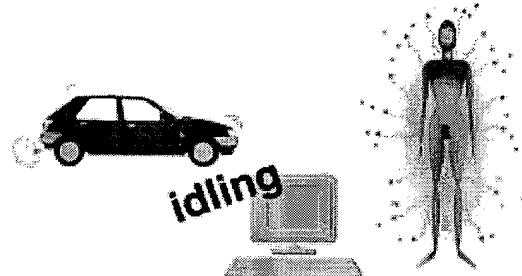
Deodorization

Temperature and Humidity in Micro Climate

Contact Us

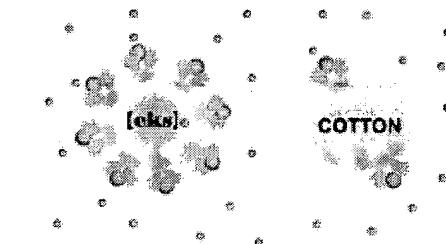
**How does [eks]® generate HEAT?**

Remember the last time you got an injection at the doctor's office; the cold feeling you experienced when the alcohol disinfectant was applied to your body. That cold feeling is a result of the heat evaporation phenomenon. When alcohol evaporates, it becomes moisture. The moisture takes the heat away from the skin. [eks]® adopts the opposite reaction to heat evaporation. This is called "ADSORPTION HEAT". [eks]® absorbs perspiration and supplies heat to the body to help keep you comfortably warm.



[eks]® generates heat even when you are not perspiring. Even when a person is not exercising, his/her body will perspire. Automobiles and PC's do a similar thing, they idle so they are ready to work at anytime.

So, [eks]® will always give you heat.

**[Concept of HEAT GENERATING SYSTEM]**

Better than cotton, [eks]® has many more hands to catch the water(Hydrophilic group)

HEAT GENERATING FIBER

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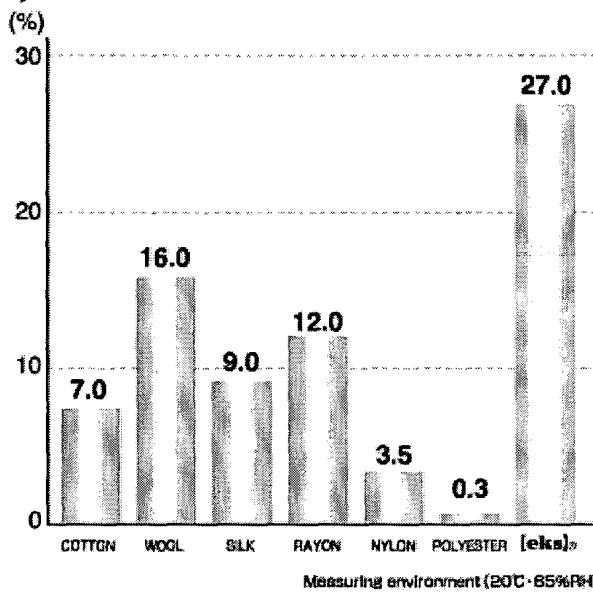
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**MOISTURE ABSORPTION**

[eks]® absorbs much more moisture than other fibers. It means that [eks]® generates much more heat, because heat generating ability is in proportion to moisture absorbing ability.

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This information is subject to revision as new information becomes available.